Petroleum Research

U N I V E R S I T Y O F U T A H

CENTER

The Petroleum Research Center (PERC), which is an integral part of the Department of Chemical and Fuels Engineering at the University of Utah, is developing practical, cost-effective solutions to liquid hydrocarbon production, handling and transportation. PERC specifically works to understand problems related to the production, transportation and processing of waxy and asphaltenic crude oils, and alleviate those problems by developing a variety of methods and software tools (models) for the efficient and optimal production of oil and gas from underground reservoirs.

TECHNOLOGY

The Center is commercializing products in three areas: Flow Assurance (tools to help keep oil products moving through pipelines despite changing conditions or constituents), Oil Simulants (environmentally safe yet accurate substitutes for crude oil), and Reservoir Simulators (finite-element models for optimizing production from geometrically complex oil and gas fields). With funding from the U.S. DOE and the petroleum industry, the PERC coordinates basic and applied research in the physical properties and physical and chemical thermodynamics of naturally occurring hydrocarbons.

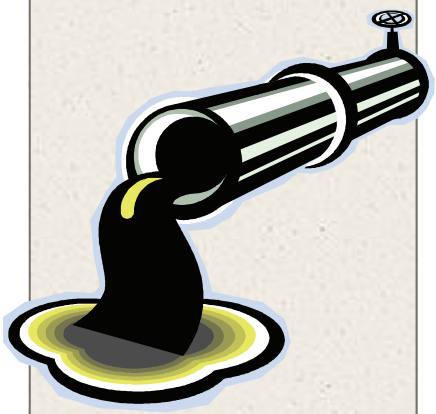
ACCOMPLISHMENTS

The Center has partnered with a manufacturer to field a new oil property prediction system using near-infrared spectroscopy and chemometrics. They have more than a 20:1 cumulative matching funds ratio, one issued patent and an additional patent pending. Work in partnership with major oil companies is continuing and expected to result in commercial deployment in the near future.

THINK TANK

What if there were...

A variety of methods and software tools to optimize the safe production of oil and gas from underground reservoirs?



Milind Deo
University of Utah
50 S. Central Campus Dr.
SLC, UT 84112
801-581-7629
mddeo@eng.utah.edu